
DCH messages

The following report format is output when the D-channel is released or established.

```
DCH x EST hh:mm:ss mm/dd/yyyy
DCH x RLS hh:mm:ss mm/dd/yyyy
```

Where x is the D-channel number and RLS or EST indicates if the channel was released or established. The time and date is also output.

X11 release 17 introduces enhanced D-channel reports.

Note: Complete operation of enhanced reporting requires X11 release 17 or later and QPC757 vintage E and later.

The format of this report is as follows:

```
DCH x EST REASON hh:mm:ss mm/dd/yyyy
DCH x RLS REASON hh:mm:ss mm/dd/yyyy
```

The REASON indicates why the D-channel was released or re-established. The following reasons may be output when the D-channel is released:

- CONFIRM = Released a D-channel because of a request from SL-1 software.
- CTS DOWN = Released a D-channel because a Clear To Send signal from the DCE interface has dropped. Check the DCE interface (PRI or modem) and associated cables.
- NO EXT CLK = No external clock received from the DCE interface. Check the DCE interface (PRI or modem) and associated cables.
- NO RESPONSE = No response from far end after N200 transmissions. No action required. Problem is at the far end.

- RED ALRM = Red (local) alarm has occurred. Check the PRI loop.
- REMOTE = Release was initiated by the far end. No action required. Problem is at the far end.
- SABME WDM = Far end responded to SABME with DM. No action required. Problem is at the far end (X11 release 18).
- TEST MODE = Release before entering test mode (X11 release 18).
- WRONG MODE = Release a D-channel because of an incorrect master/slave configuration (see prompt SIDE in LD17).
- YEL ALRM = Yellow (remote) alarm has occurred.

The following reasons may be output when the D-channel is re-established:

- AUTO REC = Re-established a D-channel because of auto-recovery.
- CONFIRM = Established a D-channel because of a request from SL-1 software.
- DMFO FRAME REC = Re-established a D-channel after receiving a DM frame in the timer recovery state (X11 release 18).
- FRAME REC = Re-established a D-channel after receiving an undefined frame from the far end.
- FRMR REC = Re-established a D-channel after receiving a Frame reject from the far end.
- INDICATION = Established a D-channel.
- INFO FRAME REC = Re-established a D-channel after receiving a frame type with an information field not allowed (X11 release 18).
- N(R) REC = Re-established a D-channel after receiving a bad N(R) from the far end.
- N201 REC = Re-established a D-channel after receiving a frame with an information field longer than N201 from the far end.
- N2X4 RNR REC = Re-established a D-channel after receiving a N2X4 consecutive RNR frames (X11 release 18).

- TIMER REC = Re-established a D-channel because of timer recovery.
- WRONG HDRL REC = Re-established receiving a frame with a incorrect header length (X11 release 18).

With MSDL D-channels the layer 2 can respond with a reason for link reset or disable condition. The output is as follows:

```
DCH : xx I PRIM1 : RESET_IND TIME: hh:mm:ss  
RESET_IND - rrrrrrr
```

```
DCH : xx I PRIM1 : DSBL_IND TIME: hh:mm:ss  
DSBL_IND - rrrrrrr
```

Where, rrrrrr is the reason for the reset or disable as follows:

NO RESOURCES—Reset the MSDL and try again. If the NO RESOURCES reason is still received, then configure the D-channel on a different card.

DTE/DCE or RS232/R422—Check switch settings on the MSDL card and far end.

LAYER 2 ERROR—Disable the DCH and enable with the force download option.

The following is a brief discussion of the messages relating to D-Channel operation. For a complete discussion, refer to *X11 input/output guide* (553-3001-400).

DCH001	ISDN package is not equipped.
DCH002	Command not allowed.
DCH003	DCHI is disabled.
DCH004	Before X11 release 17, only one link can be monitored at one time.
DCH005	Undefined link/DCHI state. There is a software/hardware mismatch. Action: 1. Disable and re-enable the DCHI card. 2. Check DCHI status.
DCH006	DCHI not responding. Action: 1. Disable and re-enable the DCHI card. 2. Check DCHI status.
DCH007	Command invalid at this state.
DCH008	Invalid source to the overlay.
DCH009	Invalid command entered.
DCH010	Invalid parameter #1.
DCH011	Invalid number of parameters.
DCH012	DCHI is not configured.
DCH013	Invalid message type.
DCH014	Invalid IE type.
DCH015	Invalid link monitor status.
DCH016	Invalid link/DCHI number.
DCH017	Invalid key entered.
DCH018	Invalid total keys entered.
DCH019	Invalid table number.
DCH020	Transmit buffer is not empty.
DCH021	Receive buffer not ready. Action: Check DCHI status.
DCH022	Invalid Octet number.
DCH023	Unexpected loop input.
DCH024	Backup DCH is not configured.
DCH025	DCH is already active. When using the SDCH DCH x command, be sure to enter the standby D-channel number.

DCH026	Specified DCH is not established. DCH must be in established state before switch command can be carried out.
DCH027	DCH already established.
DCH028	Command only valid for D-channels on MSDL card.
DCH029	DCH has to be enabled first.
DCH030	DCH has to be in Test Mode first.
DCH031	Unable to enable the local loopback sub state because the sub state is not idle.
DCH032	Unable to disable the local loopback sub state because it is not in the local loopback sub state.
DCH033	Unable to enable the remote loopback sub state because the sub state is not idle.
DCH034	Unable to disable the remote loopback sub state because it is not in the remote loopback sub state.
DCH035	Unable to run the local loopback test because the link is not in a local loopback sub state.
DCH036	Unable to run the remote loopback test because the link is not in a idle sub state.
DCH038	Invalid DCH number for ENL command.
DCH039	Invalid DCH state for enabling the link.
DCH040	Wrong number of input parameters for the enable command.
DCH041	Input enable command not recognized.
DCH042	MSDL card has to be in operational state.
DCH043	Invalid DCH number.
DCH044	Test or DCH maintenance command is not supported for D-channels configured on the MSDL card.
DCH045	MSDL card is disabled.
DCH046	Invalid maintenance request for DCH link.
DCH300	Test 200, interrupt handler interface, failed. Action: If test continues to fail, report software problem.
DCH301	Test 201, interrupt handler-to-link interface, failed. Action: If test continues to fail, report software problem.
DCH302	DCHI test 101 failed. No interrupt, but good data. Action: Replace DCHI.
DCH303	DCHI test 101 failed. There is interrupt, but bad data. Action: Replace DCHI.
DCH304	DCH test 101 failed. No interrupt and bad data. Action: Replace DCHI.
DCH305	DCHI test 100 failed. Stuck interrupt. Action: Replace DCHI.
DCH401	That command is not allowed. This is a single octet information element.
DCH402	Only three message types can be specified in one command.

DCH403	Only one feature can be monitored at one time.
DCH404	Invalid TN or no TN was entered.
DCH405	Only five TNs can be specified for incoming or outgoing messages.
DCH406	This TN has been specified already.
DCH407	TN does not associate with the selected D-channel.
DCH408	Backup D-channel is not allowed; primary D-channel should be used.
DCH410	The ENL SERV command cannot be executed when the primary D-channel and, if equipped, the backup D-channel are in the established state. Disable both D-channels before entering the ENL SERV command.
DCH411	SDCH command is allowed only when IFC= SL1 and RCVP = No in LD17.
DCH1001	Invalid primitive-ID. Action: Check DCHI status.
DCH1002	Unexpected primitive. Action: Check DCHI status.
DCH1003	Protocol error. Action: 1. If the error continues, check DCHI card status. 2. If the problem still continues, report it.
DCH1004	PRI is out of service.
DCH1005	Link release error. Action: 1. Check DCHI status 2. Check the PRI-to-DCHI cable 3. Check PRI status
DCH1006	Link establishment error. Action: 1. Check DCHI status 2. Check the PRI-to-DCHI cable 3. Check PRI status
DCH1007	Interrupt was lost. Action: If more than 10 times per day, run DCHI tests 200 and 201.
DCH1008	Output request buffer overflow. Action: If more than five times per day, reset D-channel output buffer size in LD17, using prompt OTBF.
DCH1009	PRI reported DCHI is out of service. Action: 1. Check DCHI status 2. Check PRI status 3. Check the PRI-to-DCHI cable
DCH1010	DCHI is software disabled.
DCH1011	Late link establishment. Action: 1. If the far end is disabled, no action needed 2. If the far end is active, increase the timer threshold in LD17, using prompt T200

- DCH1012 Late link release. Action:
1. If the far end is disabled, no action needed
2. If the far end is active, increase the timer threshold in LD17, using prompt T200
- DCH1013 Invalid DCHI status because of software/hardware mismatch. Action:
1. Disable and re-enable the DCHI card
2. Check DCHI status
- DCH1014 Invalid DCHI status because of software/hardware mismatch. Action:
1. Disable and re-enable the DCHI card
2. Check DCHI status
- DCH1015 Receive buffer full. Action: If more than five times per day, disable and re-enable DCHI.
- DCH1016 Transmit buffer full. Action: Check the DCHI card.
- DCH1017 No end-of-message. Action: Definitely a DCHI problem. Check the DCHI card.
- DCH1018 No transmit buffer available. Action:
1. Check PRI to DCHI cable
2. Check PRI status
3. Check DCHI status
- DCH1019 DCHI is hardware disabled.
- DCH1024 The DCH port on the MSDL card could not be enabled because the MSDL card is not in an operational state.
- DCH1025 Did not receive a confirmation from Layer 2 for a MSDL DCH test state event, therefore, a timeout has occurred.
- DCH1026 An invalid timeout occurred for the DCH test state. No further action is required for this event.
- DCH1027 A invalid test confirmation was received from layer 2. No further action is required for this event.
- DCH1028 The DCH has to be on the MSDL card for the maintenance task requested.
- DCH1029 Resynchronization of the flow control counters failed when a flow control condition was detected by the MSDL DCH Handler application.
- DCH1030 Output request buffer overflow for D channels on the MSDL card. Increase the size of the output request buffer.
- DCH4283 Both D-channels have been released. Action: Establish the D channel.

